Please add claims 16-25:

16. (New) The method of claim 1, wherein making the hole in the substrate is achieved by etching.

17. (New) The method of claim 16, further comprising:

forming a lens on top of the optical core material.

18. (New) The method of claim 17, further comprising:

depositing a polymer on top of the optical core material; and

curing the polymer to form the lens.

19. (New) The method of claim 18, further comprising:

polishing the substrate before forming the lens.

20. (New) The method of claim 16, wherein the depositing the cladding material into the hole is achieved by depositing an oxide into the hole.

21. (New) The method of claim 20, wherein the depositing the optical core material in the hole is achieved by depositing a first polymer in the hole.

22. (New) The method of claim 21 further comprising:

depositing a second polymer over the first polymer; and

curing the second polymer to form a lens on top of the optical core material.

23. (New) A substrate comprising:

a hole extending from a first side of the substrate to a second side of the substrate;

a deposition layer of cladding on an inner surface of the hole; and

a deposition layer of optical core material encased by the deposition layer of cladding.

24. (New) The substrate of claim 23, wherein the optical core material is a polymer.

25. (New) The substrate of claim 24 further comprising:

a polymer lens formed on one end of the deposition layer of cladding and the deposition layer of optical core material.